

**METRA
49 CFR 239
PASSENGER TRAIN
EMERGENCY PREPAREDNESS**

**EMERGENCY RESPONDER
IN-SERVICE TRAINING MANUAL**



Current as of 12-1-2016

Metra, we take the time to do our jobs safely

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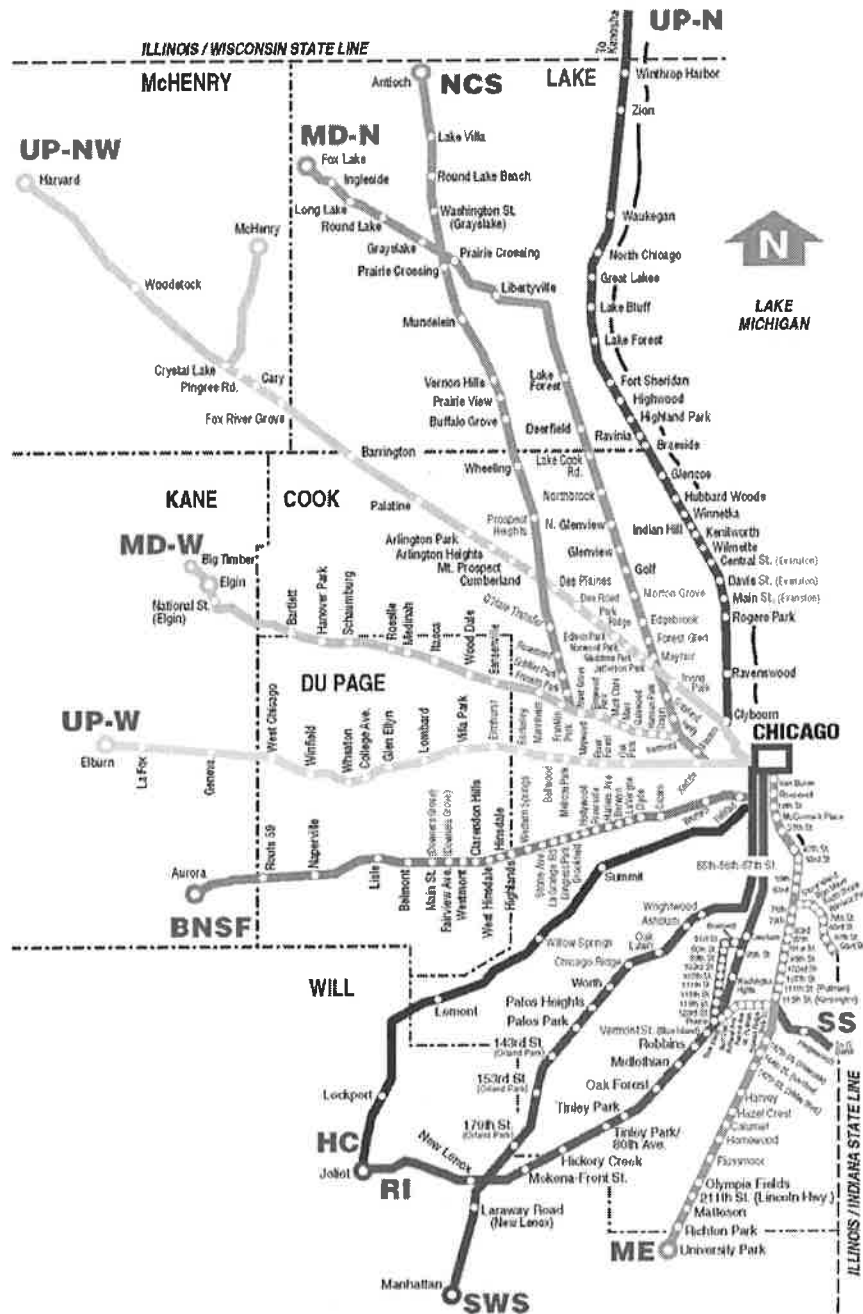
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Map of Metra Lines





METRA PASSENGER TRAIN EMERGENCY PREPAREDNESS

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Background

Metra passenger trains travel through metropolitan Chicago and its' suburbs every day, quickly and safely moving thousands of commuters and tourists to their destinations. Metra's dedicated, efficient personnel are largely responsible for successfully meeting customer expectations for on-time schedules and safety.

Safety is Metra's number one priority. Metra counts on the combined efforts of its railroad employees working with local public safety personnel to handle emergency situations.

In the event of a serious incident involving a commuter train, Metra calls on local police and fire personnel to provide assistance such as:

- Emergency evacuation of passenger coaches.
- Medical and fire services
- Traffic control
- Perimeter control

This training program addresses your role responding to an incident, how agencies work together as a team, and how to identify railroad equipment.

About This Training Program

This training program provides background information and procedures that police and fire departments, and other emergency response agencies need to know for safely and successfully responding to railroad emergencies.

Training Program Contents

This training program is divided into two parts.
Part 1 Discusses Your role and responsibility responding to a train emergency.
Part 2 Discusses the train equipment You might encounter responding to an emergency.

***Part 1
Your Role*****Section 1**

Approaching and
Assessing an
Incident

Section 2

Contacting and
Communicating
Information

Section 3

Entering and
Exiting Commuter
Equipment

Section 4

Controlling the Area

***Part 2
Train Equipment*****Section 1**

Locomotive
Equipment

Section 2

Passenger Coach
Equipment

Section 1

Approach and Assess

Objectives



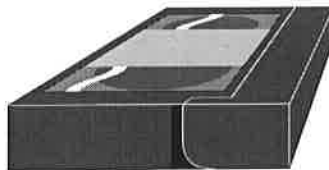
As a responder to a train incident you must make an assessment of the situation and report your findings to other responders and agencies.

Your initial evaluation can begin on your way to the scene. To do this, you need to be familiar with some railroad terminology, procedures, and roles.

By the end of this section, you will be able to:

- Describe your responsibility as a responder to a train incident
- Identify the Metra Police Emergency Control Center's role in a railroad incident
- Describe the procedure for making an assessment of an incident
- Describe the roles of crew members during an incident

Now watch the video,
Section 1- Approaching and Assessing.



Video Recap



About Metra

Metra is the second largest commuter railroad in the United States

- Metra transports 3.5 million commuters per month
- Metra operates diesel and electric trains
- Metra owns and operates five commuter train lines and assists in operations of six other lines.

Through special arrangements, Metra operates trains on these other lines.

<ul style="list-style-type: none">• Burlington Northern Santa Fe• Union Pacific	<ul style="list-style-type: none">• Norfolk Southern• Canadian Pacific• Canadian National
--	---

Metra also participates in the operation of the Northern Indiana Commuter Transit District (NICTD), generally referred to as the South Shore Railway.

It is important for you to know the railroad lines that pass through your jurisdiction.

Your Role

Section 1 - Approaching and Assessing an Incident

Your Responsibility

Your initial response to a railroad incident includes

- Determining which railroads need to be notified of an incident
- Ensuring your local dispatcher has contacted railroads to stop oncoming trains
- Getting to the site and beginning your assessment of the incident

Assessing the incident requires you to know fundamental data about railroad operations and procedures. You must also know the right questions to ask and respond accordingly to the answers.

Your Role

Section 1 - Approaching and Assessing an Incident

Approaching an Incident

You are going to have to know a few basic facts about Metra's equipment and how it operates so you can assess and provide assistance during an emergency.

Metra operate two types of trains

- Electric
- Diesel

About Metra Electric Trains

1500 volts of DC current powers Metra electric commuter trains.

An overhead system of wires, called a **Catenary**, provides the power to the train. A **Pantograph**, located on the roof of the train, makes contact with the catenary to transfer electricity to the motor.



Use extreme caution approaching an electric train incident. If you see that wires are down or wires are touching a coach, **do not** approach the train until a crew member or qualified Metra employee has told you that the overhead wire is deenergized.

If you're not sure about the power or the wires being de-energized call

Metra Electric Control at
(312) 322-2472

Section 1 - Approaching and Assessing an incident

About Metra Diesel Trains

On your initial approach toward diesel commuter trains, the first features you might encounter are

- The electrical hookups
- The knuckles and drawbars
- The air hoses

These items are dangerous and should be avoided.

Your Role

Section 1 - Approaching and Assessing an Incident

Electrical Hookups



Use caution around the outside and inside electrical hookups. The hookups are made between the coaches and locomotive along the length of the train.

480 Volts AC passes through the **outside** connection. On-board transformers step down the 480 Volts AC to 120 volts for normal on-board power.

The **inside** connection is the operating control circuit used to remotely operate the locomotive from the cab car. 74 Volts DC runs through it.

Knuckles and Drawbars

Knuckles and drawbars connect the coaches. These connections are extremely heavy and dangerous. Do not climb on or around them if you see they are separated or fractured. They might fall off and cause injury.

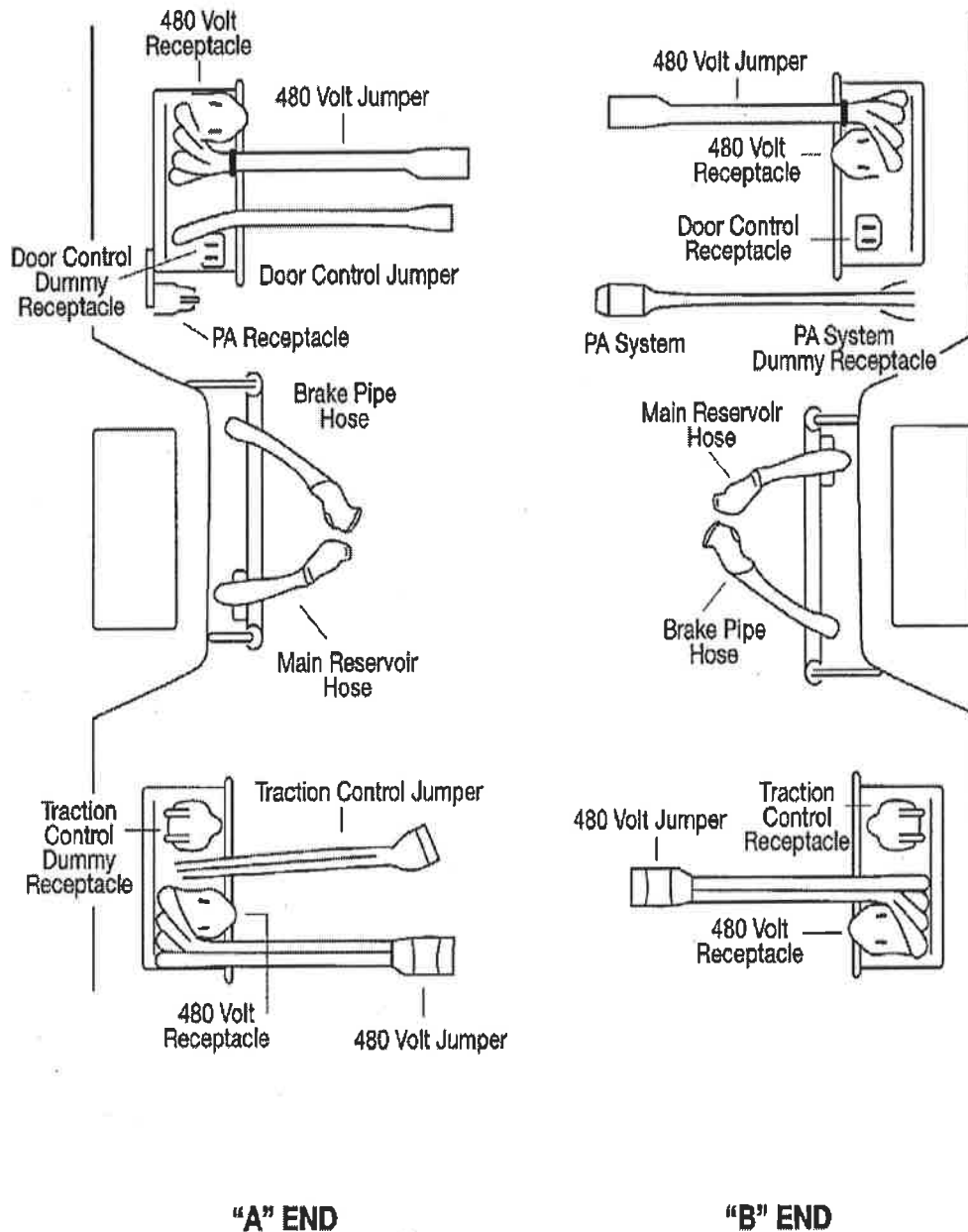
Air Hoses

Below the drawbar and knuckle assembly are two air hoses.

The smaller hose is the main reservoir line that contains 140 pounds of air pressure. The larger hose is the brake pipe that contains 90 pounds of pressure. These hoses pose an injury hazard if they become disconnected.

We will discuss the electrical and air hoses in more detail later in this training program.

Diesel Passenger Coach "Ends"



Your Role

Section 1 - Approaching and Assessing an incident

Initial Assessment

Begin your initial assessment on the way to the incident site.

- Know the location
- Determine who owns or operates the tracks involved in the incident
- Determine which train lines run on the tracks

You need to know who owns or operates the tracks that run through your jurisdiction. Having this information available can speed the process of contacting the railroads about an incident.



Write the name of the railroad(s) that owns and/or operates tracks in your jurisdiction.

Section 1 - Approaching and Assessing an incident

***Contacting the Metra Police
Emergency Control Center***

As a general rule, first contact the Metra Police Emergency Control Center about any incident involving one of their trains.

Metra Police Emergency Control Center
(312) 322-2800
(312) 322-2999

Metra takes responsibility to

- Identify other railroads that might be affected by the incident
- Contact other railroads that might be involved in the incident

Your Role

Section 1 - Approaching and Assessing an incident

Initial Assessment at the Scene

Determine Train Equipment
<p>Is it</p> <ul style="list-style-type: none"> • A passenger train? • A freight train?
<p>Is the passenger train</p> <ul style="list-style-type: none"> • A diesel train? • An electric train?
Assess The Incident
Are passengers, pedestrians, or trespassers involved?
Are hazardous materials present?
Did the train collide with a vehicle at a highway-rail crossing?
Does the incident involve the locomotive?
Does the incident involve the cab car?
Did the train collide with an object in a remote location?
What type of terrain is involved?
Is the train derailed?

Section 1 - Approaching and Assessing an Incident

Note

You can determine the equipment involved in a collision when you know the direction the train is traveling.

Passenger train locomotives are always located in the same position. Locomotives either pull or push the train.

- Locomotives pull the train away from Chicago and are located at the head of the train
- Locomotives push the train toward Chicago. The cab car leads the train toward the city.
- The engineer controls the locomotive from the cab car.

Check the train's headlight to determine its direction of travel. Depending on the pull from or push to Chicago, the locomotive or cab will have its headlight turned on.

Your Role

Section 1 - Approaching and Assessing an Incident

***Highway-Rail Grade
Crossing Incident***

If an incident occurs at a highway-rail grade crossing,

1.	Determine the number of tracks involved at the incident site. A sign at the cross bucks indicates the number of tracks at the crossing.
2.	If adjacent tracks are blocked or fouled, you must stop trains coming from both directions on those tracks, as well as the tracks the incident occurred.
3.	You should identify the owners or operators of all tracks at the crossing. Make sure all railroads have been notified about the incident.

Note



Cross bucks are part of the warning signage at a crossing.

Cross bucks



Number of tracks

Your Role

Section 1 - Approaching and Assessing an Incident

Time of Day

By knowing the time of day and whether or not a commuter train is involved in the incident, you can approximate the number of passengers that might be at risk.

When assessing an incident involving a commuter train, you need to consider peak and off-peak times.

During peak times, as many as 1,000 passengers might be on board a Metra train.



The following table lists peak and off-peak hours for all Metra commuter lines.

Peak Times	Off-Peak Times
6 - 9:30AM	9:30AM - 3:30PM
3:30 - 7PM	7PM - 12AM

Note



Do you have a schedule of trains running through your jurisdiction?

Keep in mind, commuter trains run on exact schedules, freight trains sometimes don't.

Your Role

Section 1 - Approaching and Assessing an Incident

Flaggers

1. If the tracks are blocked or fouled, you need to send flaggers at least one mile in each direction to stop oncoming trains.
 - A ¼ million pound locomotive traveling at 55 mph needs in excess of ½ mile to stop
2. Remind flaggers to stand safely off to the side of the tracks, not in the middle of them.
3. Make sure the flaggers have a red flare or red flag. The flare is used at night, the flag during the day.

Instruct the flaggers to:

a.	Stand parallel to tracks.
b.	Hold the flare or flag low and pointed toward the ground.
c.	Slowly wave the flare back and forth in a semi-circular motion, perpendicular to the track.



Your Role

Section 1 - Approaching and Assessing an Incident

Look for the Train Crew

If possible, a crew member will meet you when you arrive at the incident site. You can easily identify crew members by their uniforms. However, the engineer wears street clothes.

The crew is trained to handle many types of emergency situations. They can provide valuable assistance in your assessment of the situation.

You can rely on the crew to help you evacuate passengers.

Keep in mind that not everyone will perform to standards in stressful situations, so your coolness and expertise make a difference.

Roles

<i>The Conductor</i>	<i>The Engineer</i>
<ul style="list-style-type: none">• Is in charge of the train• Coordinates and relays information to police and fire personnel• Conveys instructions to passengers• Confers with the engineer and railroad officials to assess the situation	<ul style="list-style-type: none">• Calls Metra dispatch and keeps them updated on the situation• At all times stays with either the control cab or the locomotive• Continues operating the locomotive during an incident

If the engineer is incapacitated during the incident, the conductor or another train crew member assists with locomotive and railroad communication.

Your Role

Section 1 - Approaching and Assessing an Incident

Questions for the Crew

Date; _____ Time; _____

Ask the train crew these key questions to assess the incident

Railroad _____ Train ID Number _____ Direction of Travel North / South _____

1. Have you contacted the Metra Emergency Control Center or Metra Dispatch and stopped all trains?

☐ Yes ☐ No Time Contacted : _____ Who Contacted: _____

2. What is the location of incident? Railroad _____

DOT Crossing Name & Number _____

Mile Marker # _____

3. What train lines are involved? _____

4. How many crewmembers are on the train?

5. What is the condition of the crewmembers?

Engineer _____

Crew _____

Crew _____

Conductor _____

Crew _____

You will want to get the names and identification numbers of the crew members on the train for the report about the incident. Use common sense to collect information at an appropriate time.

6. Approximate number of passengers on board?

7. Where are the majority of the passengers located?

8. Are any passengers injured?

☐ Yes ☐ No Approximate Number of injuries

9. Where are the injured located?

North

Coach ID Numbers

South

Number and location of injured.

Your Role

Section 1 - Approaching and Assessing an incident

Determine the Location

Once at the scene of the incident, you can give the Metra Emergency Control Center an exact location by finding the nearest Metra silver signal relay box or mile marker.

The name silver signal relay box really describes what it looks like. It is:

- A large, silver box resembling a storage shed
- Easily recognized at grade crossings
- Sometimes referred to as a signal bungalow, or “ Dog House “

The Signal Bungalow

A sign on the relay box indicates the street name, mile marker, and the Department of Transportation (DOT) number of the location.

This information is used to

- Identify the highway-rail grade crossing
- Mark the scene of the incident
- Determine the district of jurisdiction – county and city

Section 1 - Approaching and Assessing an Incident

Mile Markers

A mile marker is posted along side the track.
The mile markers could be mounted on telephone poles, posts, or concrete pylons adjacent to the track.

Reporting the number on the marker to dispatch helps to pinpoint the incident location.

In the Electric districts, mile markers can be found on posts, communication poles, or catenary support structures.

Metra Operation Profile

You will receive a copy of Metra's Operation Profile pertaining to your jurisdiction. It is very important that your dispatch center knows and understands how to use this profile.

The Profile contains

- Railroad emergency telephone numbers
- Track diagrams
- Terrain information
- Building locations
- Landscape information
- Charts identifying where tracks intersect with streets, including their street names and DOT numbers



The following statements will help you create your assessment of a train incident.

What type of incident is it?

You need to know **IF**:

- It is a freight train or commuter train incident
- It is a highway-rail grade crossing collision or other collision
- It is a collision, does it involve the Locomotive or Cab car
- There is a derailment, what is the condition of the Locomotive and Cab car

Use the following charts to further refine your assessment.



Elements to consider

1. Is a freight train or commuter train involved in the incident?

If it is a	Consider this
Freight Train	<ul style="list-style-type: none">• The incident is not likely to have mass injuries.• There might be an impact on Metra trains.• If the Metra rails are blocked or fouled by the freight train, oncoming Metra trains must be stopped. Remember, stopping passenger trains might impact thousands of commuters depending on the time of day.• Hazardous materials might be involved in the incident, necessitating an evacuation of the area.
Passenger Train	<ul style="list-style-type: none">• There might be injuries to passengers;• There might be an impact on other Metra trains if the tracks are blocked or fouled;• There might be an impact on freight trains if their tracks are blocked or fouled. A stopped freight train might block a crossing, thus stopping traffic.



Elements to consider


2. What type of collision occurred?

Type of collision	Consider this
Highway-rail grade crossing collision	<p>Are cars, trucks, or other objects involved?</p> <ul style="list-style-type: none"> • What did the train collide with? • What kind of road crosses the track? <ul style="list-style-type: none"> • Private • Public—Country road, City street • Industrial • How is the crossing marked? <ul style="list-style-type: none"> • Gates and flashing lights • Cross bucks only
Other location	<p>Did the collision occur in a remote location?</p> <ul style="list-style-type: none"> • What type of terrain involved? <ul style="list-style-type: none"> • Are overhead wires nearby? • Are there ditches near the incident site? • Is there an overpass at the site? • Is there a nearby industrial site? • Are there homes or a neighborhood located near the incident site? • What objects are involved? <ul style="list-style-type: none"> • A vehicle parked too close to the track? • An abandoned vehicle in the train's path? • A trespasser



Elements to consider

3. Is the locomotive or cab car involved in the incident?

Type of collision	Consider this
Locomotive leads the train	A lesser risk of onboard injuries.
Cab leads the train	A greater risk of injuries.
Note 	<p>Knowing the direction of the train is critical in determining whether the locomotive or the cab collided with the object. Knowing the direction of travel can be an indicator of injuries to passengers on board the train.</p> <p>A locomotive striking an object will protect the rest of the train from damage by absorbing, or deflecting away the energy from a collision. Not much stands in the way of a locomotive weighing ¼ million pounds and speeds up to 55 m.p.h.</p>



Elements to consider

4. Does the incident involve a derailment and/or equipment on its side?

If the incident involves	Consider this
Derailment	<ul style="list-style-type: none"> • Determine the specific equipment off the track. • How quickly the site be cleared to permit other trains to pass.
Equipment is on its side	<ul style="list-style-type: none"> • A plan must be developed and put in place to re-route traffic around the incident scene. • Heavy equipment is needed to clear the area. • Metra will contact Hulcher Services, Inc. for heavy equipment to put equipment back on the rails • Police departments will work with Metra to route Hulcher equipment to the site.

Note



In a derailment, Hulcher generally dispatches two heavy cranes via surface streets to the incident site. The trucks hauling the cranes exceed all roadway load limits, special permits are put into effect to allow the trucks over the road.

It might take the equipment a minimum of 4 hours to arrive to the scene. It generally takes several hours to lift the train back onto the tracks and repair the damaged track.

Section 239.105 Debriefing and critique.

- (a) General. Except as provided in paragraph (b) of this section, each railroad operating passenger train service shall conduct a debriefing and critique session after each passenger train emergency situation or full-scale simulation to determine the effectiveness of its emergency preparedness plan, and shall improve or amend its plan, or both, as appropriate, in accordance with the information developed. The debriefing and critique session shall be conducted within 60 days of the date of the passenger train emergency situation or full-scale simulation.
- (b) Exceptions. (1) No debriefing and critique session shall be required in the case of an emergency situation involving only a collision between passenger railroad rolling stock and: a pedestrian; a trespasser; or a motor vehicle or other highway conveyance at a highway-rail grade crossing, provided that the collision does not result in: a passenger or employee fatality, or an injury to one or more crew members or passengers requiring admission to a hospital; or the evacuation of a passenger train.
(2) For purposes of this section, highway-rail grade crossing means a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade, and trespasser means a person who is on that part of railroad property used in railroad operation and whose presence is prohibited, forbidden, or unlawful.
- (c) Purpose of debriefing and critique. The debriefing and critique session shall be designed to determine, at a minimum:
 - (1) Whether the on-board communications equipment functioned properly;
 - (2) How much time elapsed between the occurrence of the emergency situation or full-scale simulation and notification to the emergency responders involved;
 - (3) Whether the control center promptly initiated the required notifications;
 - (4) How quickly and effectively the emergency responders responded after notification and;
 - (5) How efficiently the passengers exited from the car through the emergency exits.

Section 1 - Approaching and Assessing an Incident

(d) Records. (1) Each railroad shall maintain records of its debriefing and critique sessions at its system headquarters and applicable division headquarters for two calendar years after the end of the calendar year to which they relate, including the following information:

- (i) Date and location of the passenger train emergency situation or full-scale simulation;
 - (ii) Date and location of the debriefing and critique session; and
 - (iii) Names of all participants in the debriefing and critique session.
- (2) These records shall be made available to representatives of FRA and States participating under part 212 of this chapter for inspection and copying during normal business hours.

Your Role

Section 1 - Approaching and Assessing an Incident

METRA

Location of Emergency Situation or full scale Simulation _____ Date _____

Location of Debriefing and Critique Sessions _____ Date _____

Instructions - Questions 1 through 7 to be used for on-board medical emergencies requiring the use of Emergency Responders to assist and transport a passenger or an employee to a hospital.

Supplemental Questions 8 through 22 are required for:

- (1) *An on-board passenger or employee fatality*
- (2) *An injury to one or more passengers or employees requiring admission to a hospital after a collision (Hwy Grade Crossing Accident, Train vs. Debris)*
- (3) *The evacuation of a passenger train to insure the safety and health of the passengers (HazMat Spill, Biological Release)*
- (4) *A Security threat (Bomb Threat)*
- (5) *Derailment with Passengers Onboard*

- | | | | | |
|----|---|----|------|-------|
| 1. | Did the on-board communications equipment function properly? | NA | Yes | No |
| 2. | How much time elapsed between the occurrence of the emergency situation or full-scale simulation and notification of the emergency responders involved? | | | |
| | Occurrence time | NA | ____ | AM/PM |
| | Control/Dispatch Center personnel notified (Metra) | NA | ____ | AM/PM |
| | (Other than Metra) | NA | ____ | AM/PM |
| | Responders notified (by Metra Police Communication Center) | NA | ____ | AM/PM |
| | (by _____) | NA | ____ | AM/PM |
| | Elapsed time from occurrence to responders initial call | NA | ____ | |
| 3. | Did the Control/Dispatch Center promptly initiate the required notifications? | NA | Yes | No |
| | Metra Police Emergency Control Center notified | NA | ____ | AM/PM |
| | Adjacent rail modes of transportation | NA | ____ | AM/PM |
| | Appropriate railroad officials | NA | ____ | AM/PM |
| 4. | Approximate time of arrival of emergency responders. | NA | ____ | AM/PM |
| 5. | Did they work effectively? | NA | Yes | No |
| | If not explain _____ | | | |
| 6. | Did the passengers exit the car through the emergency exits with efficiency? | NA | Yes | No |
| 7. | Describe incident: | | | |

Your Role

Section 1 - Approaching and Assessing an Incident

METRA

Supplemental Questions

- | | | | | |
|-----|---|----|-----|-------|
| 8. | Did on-board personnel try to initiate radio call immediately? | NA | Yes | No |
| 9. | Method of notification to the Train Dispatcher/Control Center:
Onboard radio <input type="checkbox"/> Cellular Telephone <input type="checkbox"/> Wayside radio <input type="checkbox"/> | | | |
| 10. | Was there adequate radio communication equipment? | NA | Yes | No |
| 11. | Did personnel know proper emergency number to call from the wayside telephone? | NA | Yes | No |
| 12. | Did personnel identify him/herself to the Train Dispatcher/Control Center by name and location? | NA | Yes | No |
| 13. | Did on-board personnel give identification by name, train and location? | NA | Yes | No |
| 14. | Did on-board personnel report the number and status of passengers? | NA | Yes | No |
| 15. | Did on-board personnel make appropriate PA announcement to passengers? | NA | Yes | No |
| 16. | How many minutes elapsed after the occurrence before the first announcement was made? _____ | | | |
| 17. | Did personnel operate fire extinguisher correctly when required? | NA | Yes | No |
| 18. | Did personnel notify Control/Dispatch Center and request catenary power be de-energized where appropriate? | NA | Yes | No |
| 19. | Did personnel request that train movements be halted? | NA | Yes | No |
| 20. | Did personnel give clear and proper directions to those persons evacuating from the passenger cars? | NA | Yes | No |
| 21. | Did personnel instruct passengers to stay clear of downed catenary wires and any adjacent tracks? | NA | Yes | No |
| 22. | How long did it take to completely evacuate the train or right-of-way structure or extinguish a fire? | NA | | _____ |

Discussion Topics

1. Describe an incident that required you to make an on site assessment.
<ul style="list-style-type: none">• Describe the incident.• What worked well?• What will you do differently?• What will you repeat?
2. Does your jurisdiction have a plan in place to respond to a train incident?
<ul style="list-style-type: none">• Describe the plan.
3. What procedure do you have in place to respond to a train incident occurring away from a highway-rail grade crossing?
<ul style="list-style-type: none">• How will you access a remote location?

Section 2

Contact & Communicate

Objectives



In this section, you'll learn information about who you need to contact and what you need to report during a train incident. You'll also explore the role of various agencies during an incident.

By the end of this section, you will be able to:

- Describe what information you need to convey to Metra when an incident occurs
- Describe the importance of contacting the Metra Police Emergency Control Center
- Identify other agencies that might assist

Metra's Communication Process

Metra has two communication centers that respond during an incident.

- Police Emergency Control Center
- Train Dispatch Control Center

Metra Police Emergency Control Center

The Metra Police Emergency Control Center is the department that you or your local jurisdiction's dispatcher will contact to report an incident. The Center is staffed 24 hours a day by Cook County Sheriffs.

Metra Police Emergency Control Center
(312) 322-2800
(312) 322-2999

The Metra Police Emergency Control Center will report an incident to Metra Train Dispatch. The dispatcher can stop trains.

If a freight train is involved in the incident, your local dispatch should call the appropriate railroad and advise them of the situation.

You might think that there will be a duplication of emergency messages between various dispatchers. That's OK. It is better to have the redundancy than not enough communication.

Questions—The 5 W's

When you report an incident to the Metra Police Emergency Control Center, be prepared to answer these questions

- **Who** are you?
- **Why** are you calling?
- **When** did the incident occur?
- **Where** did the incident occur?
- **What** has been done?

Metra Train Dispatch

Metra Train Dispatch is a computerized control center that constantly monitors most of Metra owned train locations and traffic. It's the railroad equivalent of air traffic control.

Dispatchers monitor traffic per assigned districts. Dispatchers are in direct radio contact with trains within their district at all times. It will be Metra Train Dispatch that initially stops the train.

Burlington Northern Santa Fe, Union Pacific, Canadian Pacific, and Canadian National railroads have their own dispatchers. Metra Police will contact them in an emergency.

Remember, the train crew is always in contact with the train dispatcher.

In most incidents, the train crew will have contacted Metra Train Dispatch about an incident prior to any emergency response. Metra Train Dispatch will have already contacted the Metra Police Emergency Control Center before your local jurisdiction tells them about the incident.

Communication at the Incident Scene

Once on the scene, the incident commander from the local jurisdiction's Fire Department takes charge of the situation.

Metra Police will go to the scene to assist the incident commander if the event is a serious train related incident. The Metra Police will assess the situation and report to the Metra Police Emergency Control Center.

Metra Police

All members of the Metra Police Department are certified and sworn law enforcement officials.

Metra Police

- Have police academy training
- Are trained to investigate all types of incidents
- Are empowered to issue citations if the situation warrants
- Will either write the incident report or assist the local jurisdiction department in writing the report.

Metra can also

- Arrange for busing train passengers
- Notify heavy equipment operators
- Notify appropriate state and federal agencies, including
 - Illinois Department of Transportation (IDOT)
 - Federal Railroad Administration (FRA)
 - National Transportation Safety Board (NTSB)
 - Illinois Commerce Commission (ICC)

Discussion Topics

1. Identify your jurisdiction's incident command policies and procedures.
2. Has there been a situation in your area where incident command has been activated?
 - Describe the situation.
3. Have you or your department interacted with any of the governmental agencies mentioned in Section 2?
 - Describe the incident.
 - What worked well?
 - What will you do differently?
 - What will you repeat?

Railroad Emergency Telephone Number

Rail Lines

Railroad		Number
METRA (Northeast Illinois Regional Commuter Railroad Corporation)		
	<i>24 hour Police Dispatcher</i>	312-322-2800
	<i>24 hour Police Dispatcher</i>	312-322-2999
AMTRAK (Washington DC Center)		800-424-0217
Belt Railway Corporation (BRC)		
	North	708-496-4101
	South	708-496-4104
	Emergency	708-728-2259
Burlington Northern Santa Fe (BNSF)		
	<i>Police</i>	800-832-5452
	<i>Emergency</i>	817-234-2350
Canadian Pacific Rail System (CP)		800-766-4357
CN (Old Illinois Central line)		
	<i>24 Hour Police Dispatcher</i>	800-465-9239
		715-345-2462
Northern Indiana Commuter Transportation District (NICTD)		
	<i>Dispatcher</i>	219-878-2405
Norfolk & Southern (NS)		
	<i>Landers Tower</i>	773-933-5616
Union Pacific (UP) <i>RMCC (Risk Management Control Center)</i>		888-877-7267
	<i>UP Police</i>	800-892-1283
	<i>Harriman Center, Omaha, Nebraska</i>	800-726-1108
	<i>Commuter Control</i>	312-496-4800
	<i>Dispatch Center</i>	402-544-7622
	<i>Transportation Center</i>	312-496-4772
CN (Old Wisconsin Central line)		
	<i>24 Hour Police Dispatcher - Stevens Point, WI.</i>	800-465-9239
		715-345-2461

Railroad Emergency Telephone Numbers

State and Federal Agencies

Agency		Number
National Response Center (NRC)	24/7	800-424-0201
	Spill Specific	800-424-8802
National Transportation Safety Board (NTSB)	24/7	202-314-6290
Interstate Commerce Commission (ICC)	Business Hours	217-782-7660
Federal Railroad Administration (FRA)	Chicago Office Business Hours	312-353-6203
Railroad Incident - (National Response Center)	24/7	800-424-0201
	Spill Specific	800-424-8802
Railroad suspected terrorism (Association of American Railroads Security Desk)	24/7	202-639-2910
		202-639-2950
Illinois Department of Transportation (IDOT)		217-782-2369
Illinois Emergency Management Agency	24/7	800-782-7860

- IEMA notifies Illinois Environmental Protection Agency (IEPA), Illinois Department of Transportation (IDOT) when required, and Interstate Commerce Commission (ICC).

Section 3

Enter / Exit

Objectives



In this section, you'll learn about how to safely enter and exit damaged equipment to ensure everyone's safety.

By the end of this section, you will be able to

- Identify diesel and electric train passenger coach emergency entrances and exits
- Describe procedures for entering and exiting passenger coaches in an emergency
- Identify equipment housed in the vestibule
- Identify emergency window components
- Identify seating area components
- Identify challenges emergency responders face accessing the passenger coach upper deck
- Describe the decision-making process of shutting down the locomotive.

Video Recap



Assessing the amount of damage to equipment in an incident begins at the point of impact and moves to areas of less involvement. This technique will determine how and where you should enter the passenger coaches.

Entering the Train

Your first priority before entering a train is locating a crew member. Crew members can provide the assistance you need to gain entry into a damaged passenger car.

If a crew member is not available, you have three options for entering the coach.

- The doors at the main entrance.
This entrance leads to the center of the passenger coach, called the vestibule.
- Entering the main doors on an adjacent coach and entering the damaged coach through the connecting passageway doors.
- Entering the damaged coach through a marked emergency window. On most of Metra's coaches these windows are clearly marked "Emergency Entry" on the outside of the window.

***Entering the Main Entry
Doors***

In most situations, it is not necessary to use force on doors and windows to open them. Knowing how to properly enter and exit doors and windows can save time and lives.

Keep in mind

- The main entry doors to the vestibule are counter-balanced inside adjacent panels. Most of the working parts of the door are located inside the coach walls.
- The doors operate in the same manner as a pocket door found in residential structures.
- Once the main entry doors are forced off their tracks, they will become wedged inside the walls. Forcing the doors open further complicates the situation.

Emergency Door Valve

The main entry doors are held shut by air pressure. Opening them requires locating the valve and turning the valve handle 90 degrees to the left to release the air pressure.

The valve is

- Located on the outside of the coach. It is on the underside of the coach, just a few feet away from the door.
- Marked by a red/white reflective sign
- Painted red

The Vestibule

The main entry doors open to the vestibule, located in the center of the coach. This area serves as both the main entrance and exit of the passenger coach.

Always attempt to enter and exit through an undamaged vestibule. There is more room to maneuver in the vestibule.

There are several components in the vestibule you need to be familiar with:

- The normal door actuating mechanism
- Emergency door release valve
- The intercom phone or public address system
- The interior doors leading to the seating area

Normal Door Actuating Mechanism

The normal door actuating mechanism is a set of buttons located either above the main doors or adjacent to them. If the coach has power, this mechanism opens the main entry doors from inside the vestibule.

On some coaches, the mechanism is activated by keys. If a crew member is not available to operate this type of switch, you can use a thin, metal object, such as a pen, to insert in the keyhole and open the door.

Intercom Phone

The conductor uses the intercom phone to talk to the engineer or other crew members. It also functions as a public address system to talk to passengers.

Interior Doors

Once inside the vestibule of the coach, you will come upon another set of doors. Open these doors to enter the passenger seating area.

These interior doors operate in the same manner as the main entry doors.

- The doors are counter-balanced in much the same way as the main doors.
- These doors open either manually or by a clearly labeled door actuating panel. Push the black button located inside the silver panel.

Emergency Entry Windows

In some incidents, you might not be able to enter the passenger coach through its doors. You might have to resort to entering the coach through specially marked emergency windows.

There are a variety of passenger car and window styles in use on Metra lines. Many of the windows have different characteristics for gaining entry.

- The emergency entry windows on a passenger train are designed to be readily accessible
- You can gain entry through the windows that are clearly marked with instructions on reflective labels
- Most passenger coach windows have zip strip gaskets that hold the window in place
- At this time, all passenger coach windows are made of ¼" thick, double pane Lexan.

***Windows With Tabbed,
Zipper-Strip Gaskets***

Many windows have a zipper-like, tabbed, rubber gasket around the window. To gain entry to the coach through the emergency windows,

- Pull the zipper loop at the top to remove the gasket.
- Push the window in along the bottom near a corner and the window will fall in allowing access to the interior of the coach.

***Windows With Plain Zipper-
Strip Gaskets***

Some passenger coach emergency windows will have a window strip installed, but without the newer style zipper loop, or red identifying color to pull.
To open this type of window:

- Follow the narrow center strip around to the butt seam.
- Use a sharp tool or screwdriver to loosen the gasket. Insert the tool at the gasket's seam. Then pull the gasket to remove it from the window.
- Push the window in along the bottom near a corner, after the gasket is removed, and the window will fall in allowing access to the interior of the coach.

Lexan Windows

At this time, most windows on passenger cars are made from ¼ inch thick Lexan, a clear but extremely hard and durable material. Lexan windows cannot be broken or shattered out.
So forget about breaking through it with a sledgehammer, or fire axe.

Note



If entry is required from other than a designated Emergency Access Window. Entry can be made by cutting through the Lexan windows using a 40 tooth or greater carbide tipped circular saw.

The Seating Area

Metra's bi-level coaches can hold up to 165 seated passengers and close to 300 standing room passengers.

Both halves of most coaches are equipped with fire extinguishers, emergency tools, and first aid kits. Most fire extinguishers and tool kits are located in the stairwell near the upper level.

Moving inside the train is very difficult when you are dressed in full protective gear and carrying equipment. You will have to rethink some of the emergency techniques you use now when you are inside a passenger coach.

The situation inside the coach might call for shutting down power. The power switches are housed in lockers under the stairs located just inside the interior vestibule doors.

- Relays and switches that supply power to on-board equipment are housed in the lockers
- The main switch in this locker can be used to power down the entire coach
- If at all possible, let a crew member handle these switches

In the event of a catastrophic incident with serious or fatal passenger injuries, you must be alert for

- Bio-Hazard conditions aboard the train
- Passengers trapped beneath the seats and in the lavatory

Bio-Hazardous materials in the passenger coach present a new set of problems. You might need to bring in trained specialists to assist you.

The seat backs in many passenger coaches can be manually flipped. You can adjust the seat backs to allow you to treat a passenger, or position the seat backs to permit you to move a passenger through an emergency window.

The Upper Deck

Upper deck access is very difficult if you are in full turnout gear. The narrow aisle restricts your use of conventional means dealing with various emergencies.

- The staircase is very narrow, restricting access to the upper-deck
- The walkway in the upper deck, coupled with the arrangement of a package tray, restricts your turning movements

If there are injured passengers in the upper-deck keep these points in mind:

- It is extremely difficult to move a fully packaged patient to the lower level
- The space is too small to use a full backboard to remove an immobilized passenger
- It is difficult to remove a passenger that becomes combative
- The overhead luggage rack can be removed in the event an injured passenger needs to be moved from the upper deck

The Lavatory

Be certain to check the lavatory for injured passengers.

- Lavatories are on one end of coaches equipped with them
- Not all coaches have a lavatory
- Some lavatory doors open inward, and cannot be broken down
- The space in the lavatory is small, so it will be difficult to remove an injured passenger
- On American Disability Act (ADA) equipped trains, the restrooms are located next to the adjacent doors. These lavatories have sliding doors and are much larger than normal
- The South Shore Line electric trains have lavatories located adjacent to the center vestibule

***Entering and Exiting
Electric Trains***

Electric trains are called multiple units, or “MUs.” Two types of MUs operate in Metra’s electric district.

- Metra Multiple Unit
- South Shore Railway Multiple Unit

You need to know if these trains travel through your jurisdiction because entering and exiting their coach doors differs from Diesel passenger coaches.

Metra MU

Main Doors

Metra's MU does not have an emergency valve to allow access to the main doors from the outside. Look for a valve near the smaller door at the front end of the coach.

You can easily identify the front end of a MU coach.
Look for the pantograph. It is located at the front end of a coach.

To locate the emergency door valve on Metra MUs,

1.	Look along the car body for the white/ red arrow.
2.	Locate the small square box the arrow is pointing toward. It is beneath the coach.
3.	Locate the emergency release ring inside the box.
4.	Grasp the ring and pull down. The doors will open.

Metra MU

Vestibule

This MU's main vestibule area is spacious and equipped much like those on the diesel train coaches.

The automatic door opener is located adjacent to the main entry doors. If the automatic door opener is not operational, use the emergency door operating valve to open the main entry doors.

The emergency door operating valve is located directly below the automatic door opener in a small enclosure. Lift the enclosure's door and pull the red handle upwards to release the air pressure holding the main entry doors shut.

Seating Area

The seating area is very similar to the diesel train passenger coach.

- The coach features a bi-level seating area.
- Fire extinguishers and emergency tools are located on the lower level above the seats.

The high voltage cabinets housing electrical switches and relays are located under the stairwells, just as they are on the diesel train coaches.

South Shore Railway MU

The South Shore Railway MU coach differs from other Metra MUs.

Main Doors

The main doors can be opened from the outside with an emergency door release. The emergency door releases are located near the main doors on both sides of the passenger coach.

- The emergency door release is clearly marked and located to the right and below the main doors.
- The handle of the release must be pulled firmly.
- The door mechanism is then released and the door can be opened.

The emergency door release cannot be accessed if the train is parked at a station platform. You have to access the release on the opposite side of the coach.

The South Shore Railway also has some coaches called trailer cars.

- These cars have side doors called *plug* doors.
- They have been plugged and are not operable.
- Emergency entry to trailer cars can be made only through the end doors of an adjacent coach.

South Shore Railway MU

Vestibule

The vestibule contains

- An intercom system.
- An emergency hand brake located near the main doors.

Seating Area

There are no doors separating the vestibule area from the seating area.

- An emergency door valve for opening the main doors from inside the coach is located near the seating area. The valve is located inside a clearly marked cabinet.
- All of the seats are on one level.
- Additional emergency door valves are located at either end of the coach.
- A large, spacious lavatory is located near the center of the coach.

***Need For Shutting Down
the Locomotive***

One of the questions you need to ask when an incident occurs is, “Can this situation be managed while the locomotive is running?”

Shutting down a diesel locomotive is a command decision that cannot be made without serious thought about the impact on the well-being of the passengers on board the train.

Events that might require the locomotive to be shut down include

- A ruptured fuel tank - to stop the flow of fuel.
- A need for someone to get under or around a running locomotive.
- Someone or something trapped under the locomotive.

A ruptured fuel tank could require the locomotive to be shut down to stop the flow of fuel. A fuel tank that is ruptured at the top of it might not leak fuel.

Note



A fuel tank might rupture and not spill fuel. This happens when the rupture occurs at the top of the tank or above the liquid level.

Impact of Shutdown

You must consider the psychological impact to the passengers and crew when the locomotive is shut down.

All the power to the entire train will be turned off when the locomotive is shut down. This results in:

- No lights.
- No heat during the cool months.
- No air conditioning during warm months.
- No compressed air.
- No intercom or radio communication.

Stress levels are certain to rise when the power is shut-off.

Location of Locomotive Cut-Off Switches

On Metra Locomotives

- Outside the locomotive: The emergency fuel cut-off switch is located on the frame just above and on both sides of the fuel tank.
- Inside the locomotive: The emergency fuel cut-off switch is located on the panel behind the engineer.

On Cab cars

Remember, Cab cars are at the head of passenger trains heading toward Chicago.

- On some Cab cars an emergency cut-off switch is located in front and above where the engineer sits.

Moving Underneath the Train

You must be cautious if the situation calls for you to move under the locomotive or passenger coaches. Avoid the air hoses and electrical cables if possible.

- The train crew can assist you in moving underneath the coaches safely.

Avoid the air hoses if possible.

- Two air hoses are suspended from the coaches. Only a flange and air pressure connect the hoses.
- If you push the hoses up, they might disconnect. 90 to 140 lbs. of pressure could be released causing the air hoses to swing wildly.
- The electrical cables have 480 volts of AC running through them.

In theory, the electrical cables circuit becomes disconnected when they are grounded or shorted. You might assume you are safe to approach them.

DON'T MAKE THAT ASSUMPTION!

Utilizing Undamaged Coaches

An undamaged coach can be used to house communication links and provide shelter while treating injured passengers or crew members.

Communication is key in an emergency. The intercom system in an undamaged car can be used to keep the channels of communication open to emergency responders, train crew, and passengers.

Weather conditions might warrant using an undamaged coach as shelter. A coach can serve as a triage location, or incident command center.

Exiting the Train

The priorities for exiting the train are the same as entering.

- Exit through the vestibule doors.
They are easier to exit because they are larger and easily accessed.
- If the vestibule is damaged, exit through the connecting passageway doors to an adjacent car, and out through its vestibule.
- Exit through a clearly marked emergency window.
The emergency windows are marked with luminescent labels detailing their operation.

Remember these cautions about exiting emergency windows.

- Windows are narrow. You might not be able to move a completely packaged patient through the window opening.
- Windows are located 5 feet above ground.
- Use the windows as an exit only when necessary.

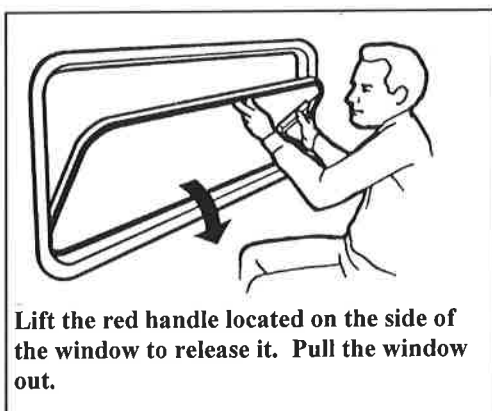
Working Near the Train

Your safety is important, too.
Keep these safety tips in mind.

- Avoid walking on the rails. If you need to walk on the tracks, walk on the ties to avoid falls and injuries.
- Be aware of all rail switches in the vicinity. Remote controlled switches can move at any time.



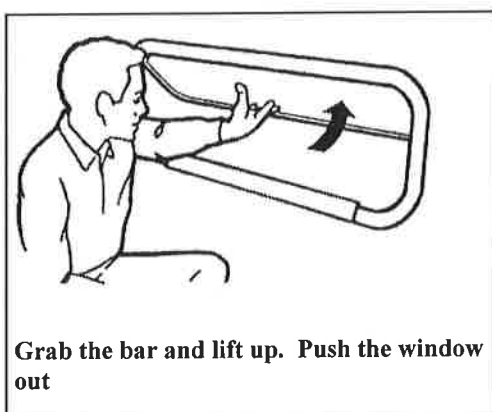
METRA Passenger Coach Windows



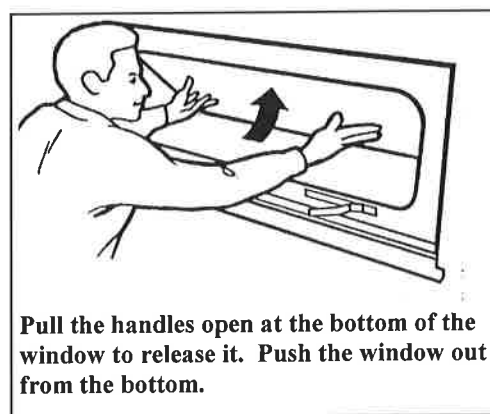
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TYPE 2



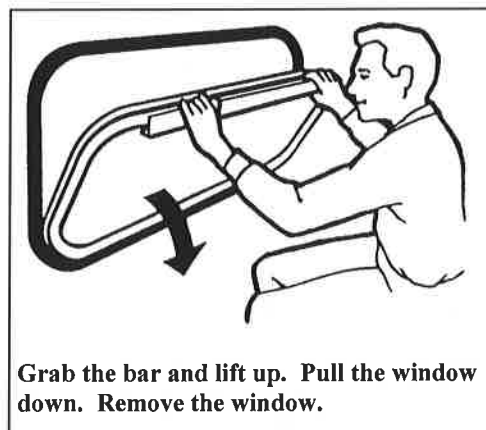
TYPE 3



TYPE 4



TYPE 5



TYPE 6

Discussion Topics

1. Does your department have a plan or procedure in place for removing injured crew and passengers from a train? <ul style="list-style-type: none">• If so, describe the plan.• If not, suggest one.
2. Discuss the available options for evacuating injured passengers from the upper-deck of a passenger coach.
3. Does your department have experience removing injured passengers from a commuter train? <ul style="list-style-type: none">• Describe the incident.• What worked well?• What will you do differently?• What will you repeat?

Section 4

Control the Area

Objectives



Your responsibilities as a train incident responder include:

- Keeping the passengers safe
- Stabilizing the area
- Keeping the trains moving

In this section, you'll learn about controlling the area of a train incident.

By the end of this section, you will be able to

- Describe the importance of keeping passengers on the train
- Describe the importance of controlling the incident site
- State the importance of keeping trains moving
- Identify the role of Metra Police at a grade crossing incident

Video Recap



Keep Passengers Safe

During peak times, Metra passenger trains can carry upwards of 1,000 commuters. You know that keeping a large number of people safe and calm during an emergency can be extremely challenging.

It is highly recommended that you keep the passengers on the train for as long as it is safe. Passengers are safer on the train than walking about the incident site.

Stabilize the Area

Stop all unauthorized personnel from entering the area.

A serious incident might have a large number of responders and resources from a variety of agencies arriving on the scene.

The scene doesn't need additional outsiders.

Keep the Trains Moving

Once the scene is stabilized, perform another assessment of the incident with a railroad liaison. You will be able to determine when train traffic can continue through the area.

Once the tracks are clear, Metra Police will give approval for getting traffic rolling. It is vital to keep traffic moving and avoiding gridlock on the tracks and surface streets.

During peak traffic times, thousands of commuters and their families are dependent on trains reaching their destinations on time. Any disruption to commuter schedules can lead to chaos.

Stop and think about the impact a stopped freight train might have on a community as it shuts off a busy grade crossing. Traffic could be blocked for hours!

Reporting the Incident

Every incident requires a report. Metra Police officers responding to the scene will meet with the local police commander to determine who will complete the State of Illinois accident report and other required reports.

Discussion Topics

1. Discuss your department's procedures for stabilizing an accident scene. <ul style="list-style-type: none">• What policies and procedures apply to a train incident
2. Do you have experience controlling large crowds of people at an accident site? <ul style="list-style-type: none">• Describe the incident.• What worked well?• What will you do differently?• What will you repeat?

